

NATIONAL INSTITUTES OF HEALTH  
WARREN GRANT MAGNUSON CLINICAL CENTER  
NURSING and PATIENT CARE SERVICES

Standard of Practice: **Care of the Patient Receiving Intravenous Anticoagulant Therapy**

**Essential Information**

1. An anticoagulant product administered by an intravenous route is categorized as a high-alert drug and as such, is subject to the conditions described in the SOP: Medication Administration.
2. A nurse is strictly prohibited from preparing an anticoagulant infusion in accordance with POL: Parenteral Admixtures. All infusions are prepared and labeled by a pharmacist.
3. Two (2) independent checks of a high alert drug is defined as 2 licensed health care professionals who each separately:
  - a. Compare all **drug product labels** (CC-generated drug product label and manufacturer's drug product label, if present) against the medical order for the right patient, drug, dose, concentration, administration route, date and time of administration, and product expiration dating.
  - b. Compare the **infusion pump settings** (which may include the volume to be infused, the drug, concentration, basal rate, bolus dose, lockout intervals, dose limits, and range settings) against the medical order.
  - c. Review the **ordered route of infusion** and check the line attachment by tracing from the drug product along the administration set to the site of infusion.
  - d. Carry out any required **drug calculation** and compare it against the medical order.
4. An intravenous anticoagulant can be infused through a Y-site with a compatible drug or solution.
5. Plasma sampling for coagulation studies are generally not drawn from the same IV line or limb used to administer an anticoagulant drug.

**I. ASSESSMENT**

- A. Prior to initiating anticoagulant therapy, a nurse reviews relevant laboratory data which may include a CBC and coagulation studies and notifies a licensed independent practitioner (LIP), if indicated.
- B. As described above, two independent checks for the right patient, drug product labels, infusion pump settings, route of infusion, and applicable drug calculations are performed prior to administering a high-alert drug and with:
  1. A change in caregiver
  2. Each bag change
  3. A change in pump settings
- C. During anticoagulant therapy, a nurse:
  1. Reviews relevant laboratory data including a CBC and coagulation studies in accordance with a medical order and notifies an LIP, if indicated.
  2. Assesses blood pressure, heart rate and respiratory rate at least every 8 hours.
  3. Monitors for complications of anticoagulant therapy at least every 8 hours which may include signs of bleeding, chest pain, dyspnea, sudden weakness, and changes in mental status and notifies an LIP, if indicated.

**II. INTERVENTIONS**

- A. A nurse coordinates with the LIP the discontinuation of an anticoagulant infusion prior to an invasive procedure.

- B. All intravenous anticoagulant agents are administered by a flow-control pump labeled with the name of the anticoagulant drug on the front of the pump.
- C. When a patient leaves the patient care unit for a diagnostic test or procedure, a nurse calls the receiving area and reports to a nurse or LIP that the patient is receiving a continuous infusion of an anticoagulant drug and is at increased risk for bleeding.
- D. At the start of an anticoagulant drug infusion and until discontinued, bleeding precautions are initiated and maintained which may include using a soft toothbrush, an electric shaver, avoiding the use of enemas, rectal thermometers and suppositories, and restrictive clothing.
- E. Direct pressure is applied to all venous puncture sites for a minimum of five minutes or until hemostasis is achieved.
- F. Direct pressure is applied to all arterial puncture sites for a minimum of fifteen minutes or until hemostasis is achieved.
- G. If a continuous infusion of an anticoagulant drug is interrupted for any reason, a nurse consults with an LIP for medical orders to reinstate the infusion which may include a bolus dose of the anticoagulant drug, or a change in the rate of infusion.
- H. A nurse provides patient/family education when an infusion of an anticoagulant drug therapy is initiated in accordance with the SOP: Medication Administration.

### III. DOCUMENTATION

- A. A nurse documents:
  - 1. The anticoagulant drug infusion rate at least every eight hours and with every rate change in an approved electronic record or other approved medical record form.
  - 2. The assessment parameters, interventions, a patient's response to the drug infusion, and patient/family education provided.

### IV. REFERENCES

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- D. McEvoy, G. (ed.) (2003 1995) American Hospital Formulary Service: AHFS Drug Information. McEvoy, G. (ed.) American Society of Health-System Pharmacists. Bethesda, MD.
- E. NIH SCD Web resource: (CC Drug Formulary Icon, Drug info from Micromedex, The Care Notes, type in drug)
- F. NIH SCD Web resource (CC home page, Staff info, Departments, pharmacy, Med, info, Drug-Nutrition interaction-pt info)
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Approved by:

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## SOP Care of the Patient Receiving IV Anticoagulant Therapy

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